REMARKS

Claims 1-18 are pending in the application. Applicant would like to thank the Examiner for identifying the allowable subject matter.

Rejections under 35 U.S.C. §103(a)

Claims 1, 8, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anne et al. (U.S. Patent No.: 6,603,808, hereinafter, "Anne") in view of Wilber (U.S. Patent No.: 6,324,558), and further in view of Vette (U.S. Patent No.: 4,216,424). Applicants respectfully traverse these rejections.

There are three basic criteria to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a). First, there must be some suggestion or motivation in the cited references to modify or combine their teachings; second, there must be reasonable expectation of success; and third, the prior art references must teach or suggest all the claim limitations. *See* M.P.E.P §2142. The current rejection of claims 1, 8, and 11 fails to meet these criteria.

Regarding claim 1, the Examiner has stated that "It should be noticed that Anne fails to clearly teach the high pass filter including a resistor in series with an input capacitance. However, Wilber teaches such features (see figure 4, resistor 420, capacitor 411, col.14, ln.19-28) for a purpose of determining the high pass cut-off frequency." Applicants respectfully disagree that Wilber teaches such feature.

Applicants would like to respectfully point to the Examiner that a careful reading of the cited sections of Wilber reveals that the resistor 420 is not in series with the capacitor 411. Actually, it is the parallel combination of the resistor 420 and the capacitor 410 which is in series with the capacitor 411. As for the functional aspect of an electronic circuit, a resistance in series with a first capacitor performs significantly different than a parallel combination of the resistor and a second capacitor being in series with the first capacitor. Accordingly, Wilber does not teach the limitations of claims 1.

Further, the Examiner has stated that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the high pass filter including a resistor in series with an input capacitance, as taught by Wilber, into view of Anne in order to prevent the interference between the POTS and DSL devices." (Emphasis added). Applicants respectfully disagree and would like to point to the Examiner that in the section following the cited section (col. 14, lines 29-35), Wilber describes the function of the parallel combination of the resistor 420 and the capacitor 410, which actually teaches away from its use with Anne. According to Wilber, "The parallel impedance of resistor 420 and capacitor 410 produces a high frequency pole which **compensates for a high frequency drop off in the incoming signal**, which drop off is typical of amplifiers." (Col. 4, lines 29-32, emphasis added). The parallel combination of the resistor 420 and the capacitor 410 is actually an output interface for the five stage, low-noise, low-power, high-input-impedance amplifier 380 described in figure 3 of Wilber (*see* figure 3, col. 12, lines 5-60). Thus, the addition of a high frequency pole in the filter band 204 of Anne does not serve any purpose for the POTS signal. Thus, an ordinary skill in art will not combine a high frequency pole generator at a POTS signal input. Accordingly, neither Wilber nor Anne teaches, suggests or provides any motivation to combine their teachings.

As to the combination of Anne and Wilber with Vette, the Examiner has stated that

> "Anne and Wilber, in combination, fails to clearly teach the resistor has a resistance substantially more than the internal resistance of the input capacitance. However, Vette teaches such features (see figure 1, block 14, block 14, col.1, ln.13-37, col.4, In.8-39)(i.e., 'the high internal resistance of capacitor will cause the capacitor failures which due to leaky or shorted. Therefore, one good capacitor should have a very small or zero internal resistance.) for a purpose of prevent the current leakage and open circuit." (Emphasis added).

Applicants would like to respectfully point to the Examiner that Vette does not even describe features as asserted by the Examiner.

First, contrary to the Examiner's assertion, Vette does not show a capacitor in series with a resistor in a circuit. The capacitor block 14, as cited by the Examiner, is actually a

representation of a blocking capacitor 14. Vette does not even describe the resistor shown in the capacitor block 14 as a circuit element. The resistor shown in the blocking capacitor 14 is actually the equivalent series resistor (ESR) of the blocking capacitor 14. To further explain this, Applicants would like to request the Examiner to review figure 3 of Vette where the application of the blocking capacitor 14 is explained. In figure 3, Vette shows the blocking capacitor 14 as simply a capacitor and not a resistor in series with a capacitor (*see* figure 3, col. 7, lines 8-61).

Second, Vette does not describe the need for having smaller internal resistor for capacitors as asserted by the Examiner. In contrast, Vette actually describes the problems with electrolyte capacitors and describes an apparatus to test failed capacitors by measuring their internal resistance. In fact, Vette describes that the internal resistance of electrolyte capacitors increases "...due to equipment heat, old age, poor sealing, or internal heat generated from ESR and high ripple currents." (*See* col. 1, lines 20-22). Nowhere, in its disclosure, Vette describes the need for having smaller internal resistor for capacitors as asserted by the Examiner.

Third, the Examiner has stated that:

> "...it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the resistor has a resistance substantially more than the internal resistance of the input capacitance, as taught by Vette, into view of Anne and Wilber in order to improve the failure of capacitor." (Emphasis added).

Applicants respectfully disagree. Vette does not teach having a resistance substantially more than the internal resistance of the input capacitor to improve the failure of the capacitor. In fact, Vette actually teaches how to test a failed electrolyte capacitor by measuring its internal resistance. According to Vette, an electrolyte capacitor will fail regardless of the size of the external resistors because the factors described by Vette such as, equipment heat, old age, poor sealing, or internal heat generated from ESR and high ripple currents, which are characteristics of electrolyte capacitors, have nothing to do with the external resistors. Thus, the combination of Vette with Anne and Wilber is improper and even then, the combination does not disclose, teach, or suggest features as recited in claim 1.

Accordingly, claim 1 is patentably distinguishable from the cited references and Applicants respectfully request the Examiner to withdraw the finality of the rejection of claim 1.

Claims 8-11 depend from claim 1 and are patentably distinguishable from the cited references for at least the same reasons as claim 1.

Claims 13-14, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung et al. (U.S. Patent No.: 6,542,540, hereinafter, "Leung") in view of Wilber (U.S. Patent No.: 6,324,558), and further in view of Vette (U.S. Patent No.: 4,216,424). Applicants respectfully disagree.

The combination of Leung et al., Wilber, and Vette dose not disclose, suggest, or teach the filter recited in claim 13.

First, Leung et al. does not even show the functional circuit of the high-pass filter (HPF) 68. The HPF 68 is shown as a block diagram, thus it is not clear what circuit elements are implemented in the HPF 68.

Second, as explained above, Wilber shows a circuit for generating a high-frequency pole for an incoming signal to compensate for frequency drop-off due to the amplification of the signal by a preceding amplifier stage (*see* col. 14, lines 29-38). In contrast, the incoming signal at the HPF 68 is received from a Hybrid 50, which terminates an already split high-frequency signal received from another HPF 78, which separates low frequency voice signals from an incoming POTS line 20. Thus, there is no teaching, suggestion, or motivation in either of the references to combine their disclosures to incorporate the use of the high-pass filter with a high-frequency pole generator as asserted by the Examiner.

Third, as explained above, Vette does not even teach having a resistance substantially more than the internal resistance of the input capacitor to improve the failure of the capacitor. Thus, the combination of Vette with Anne and Wilber is improper and even then, the combination does not disclose, teach, or suggest a filter as recited in claim 13.

Claims 14-16 depend from claim 13 and are patentably distinguishable from the cited references for at least the same reasons as claim 13.

Claim 17 depends from claim 13 and is patentably distinguishable from the cited references for at least the same reasons as claim 13. Further, the Examiner has stated that "Wilber further teaches the filter further comprising a second resistor in series with another stage **contained in the high pass filter** (see figure 3, resistor 345, col. 1a, ln.1-15)." (Emphasis added). Applicants would like to respectfully point to the Examiner that in the cited sections, Wilber does not disclose a high-pass filter. In contrast, in the cited sections, Wilber actually discloses an **analog noise generator 108** (not a high-pass filter) comprising a five-stage, low-noise, low-power, high-input-impedance amplifier 380 including op amps 303-307 (*see* col. 12, lines 5-20). Thus, there is no motivation for one skill in art to combine an analog noise generator of Wilber with a high-pass filter of Leung et al. Accordingly, claim 17 is further distinguishable from the cited references.

Claim 18 depends from claim 13 and is patentably distinguishable from the cited references for at least the same reasons as claim 13. Further, regarding claim 18, the Examiner has stated that "Wilber further teaches the filter wherein the high pass filter, the amplifier and the low pass filter are implemented in a monolithic integrated circuit (see col.12, ln.5-25)." (Emphasis added). Applicants would like to respectfully point to the Examiner that a careful reading of the cited sections reveals that Wilber actually describes an analog noise generator 108 using **three integrated circuits, IC1, IC2, and IC3.** According to Wilber, IC1-3 are low-power JFET operational amplifier packages (*see* col. 12, lines 10-15). Thus, even in the cited sections, Wilber does not show that the high-pass filet, amplifier, and low-pass filter are implemented in a monolithic integrated circuit as recited in claim 18. Accordingly, claim 18 is further distinguishable from the cited references.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anne et al. (U.S. Patent No.: 6,603,808, hereinafter, "Anne") in view of Wilber (U.S. Patent No.: 6,324,558), and further in view of Vette (U.S. Patent No.: 4,216,424), as applied to claim 1 above and further in view of Nye et al. (U.S. Patent No. 6,144,659, hereinafter, "Nye").

Claims 9-10 depend from claim 1, which has been distinguished from the combination of Anne, Wilber, and Vette. Thus, the combination of Anne, Wilber, and Vette further in view of

Nye cannot render claims 9-10 obvious. Accordingly, claims 9-10 are patentably distinguishable from the cited references for at least the same reasons as claim 1.

Applicants respectfully request the Examiner to withdraw the finality of the rejection of claims 1, 8-11, 13-14, and 16-18. Applicants believe this application and the claims herein are in a condition for allowance. Should the Examiner have further inquiry concerning these matters, the Examiner is requested to contact the below named attorney for Applicants.

Respectfully submitted,

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